

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Rec'd PCT/PTO 03 SEP 2004

REC'D 09 JUN 2004



WIPO PCT

Applicant's or agent's file reference 113871 ATRA1/sko	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/NO 02/00092	International filing date (day/month/year) 06.03.2002	Priority date (day/month/year) 06.03.2002
International Patent Classification (IPC) or both national classification and IPC H01Q21/06		
Applicant ATRAX AS et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
 - ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 06.10.2003	Date of completion of this report 08.06.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Van der Peet, H Telephone No. +49 89 2399-2764 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/NO 02/00092**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-10 as originally filed

Claims, Numbers

1-9 received on 25.03.2004 with letter of 23.03.2004

Drawings, Sheets

1/8-8/8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/NO 02/00092**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
- (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application,
 - ☒ claims Nos. 9
- because:
- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
 - ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 9 are so unclear that no meaningful opinion could be formed (*specify*):
- see separate sheet**
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 - ☐ no international search report has been established for the said claims Nos.
2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:
- ☐ the written form has not been furnished or does not comply with the Standard.
 - ☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-8
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-8
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

2. Citations and explanations

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/NO 02/00092

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/NO02/00092

1. In the response to the Written Opinion of 10.12.2003 it was submitted that the function of the U-shaped segments in D1 is not the same as in the antenna of the invention in which the segment provides a time delay and a "shift of the magnetic field streaming across the gap included in the U-shaped segments". It was submitted that the gap is an important feature of the antenna, and one of the reasons for why it works so well in a (nearly) vertical position because the size of the U-shaped segments will be adapted to the location of the antenna and the deviation from a vertical position, i.e. the receiving angle of the signal.

These submissions must be rejected for the reasons set out below.

It is noted that claim 1 refers to "bent segments or compensation leads", i.e. claim 1 is not restricted to "U-shaped segments" but includes segments which do not necessarily exhibit gaps and the purported advantages of these gaps. Moreover there is no causal link between the "shift of the magnetic field streaming across the gap included in the U-shaped segments" and the antenna's performance in a (near) vertical position.

It is accordingly maintained that the antenna known from document D1 is perfectly suitable for receiving a digital or analogue broadcast signal. The fact that according to claim 1 of document D1 the signals emanating from the radiators are equiphase coupled to a central point implies that the said signals are subject to a corresponding time delay, which is commensurate with the length of the connecting conductive paths. Document D1 discloses, in particular, bent segments or compensation leads (cf. figures 5 and 6) comprising one curvilinear section. Connection by bent segments is hence rendered obvious by document D1. The earth plane 12 in document D1 functions as a reflector to impinging radiation. Claim 1 is hence rendered obvious by document D1.

2. Claim 2 refers to a segment extending in "the third direction", which has no antecedent in claim 1. Claim 2 is accordingly not clear (Article 6 PCT).
The feature of claim 3 is known from document D1 (cf. e.g. figure 7). The feature of claim 4 is known from document D6 (cf. column 4, lines 35 to 42). The feature of claim 5 is known from document D7 (cf. Summary in column 1 thereof). The features of claims 6 to 8 are known from document D1.
3. Anent claim 9 attention is drawn to the proscription of Rule 6.2(a).